

information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and TOC information; and recording means for recording the modulated, encoded TOC information in said at least one TOC track in said lead-in area and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm , wherein said optical disk has a linear velocity in the range of 3.3 m to 5.3 m per second during a playback operation.--

REMARKS

A Final Office Action issued in the present application on June 5, 2002 and an Advisory Action issued in the present application on September 27, 2002. A telephone conference between Examiner Baker and Dennis Smid (one of the applicants' undersigned attorneys) was held on October 29, 2002. The applicants and Mr. Smid wish to thank the Examiner for his time and consideration for such interview.

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103 or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Claims 1-66 and amended claims 67-72 are in this application.

As indicated in the September 27th Advisory Action, claims 1-66 are allowed.

Claims 67-72 have been amended herein as discussed during the October 29th telephone conference.

Further, during the October 29th telephone conference the Examiner indicated that the present Amendment would be entered.

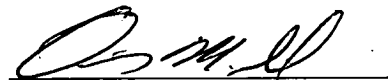
Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

In view of the foregoing, entry of this amendment, favorable reconsideration and withdrawal of the rejection of claims 67-72 and the allowance of this application with claims 1-72 are respectfully requested.

Please charge any fees incurred by reason of this response and not paid herewith to Deposit Account No. 50-0320.

Respectfully submitted,
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"VERSION WITH MARKINGS TO SHOW CHANGES MADE."

IN THE CLAIMS

Please amend claims 67-72 by rewriting the same as follows:

--67. (Twice Amended) A method of recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said method comprising the steps of providing user information for recording in a plurality of sectors in user track regions; providing table of contents (TOC) information for recording in a plurality of sectors in at least one TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modulating the encoded user and TOC information; recording the modulated, encoded TOC information in said at least one TOC track in [either] said lead-in area [or said program area]; and recording the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm and with a linear density in the range between 0.237 μm per bit and 0.387 μm per bit,

--68. (Twice Amended) Apparatus for recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said apparatus comprising: input means for providing user information for recording in a plurality of sectors in user track regions and table of contents (TOC) information for recording in a plurality of sectors in at least one TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said TOC

information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and TOC information; and recording means for recording the modulated, encoded TOC information in said at least one TOC track in [either] said lead-in area [or said program area] and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between $0.646\text{ }\mu\text{m}$ and $1.05\text{ }\mu\text{m}$ and with a linear density in the range between $0.237\text{ }\mu\text{m}$ per bit and $0.387\text{ }\mu\text{m}$ per bit.-

--69. (Twice Amended) A method of recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said method comprising the steps of: providing user information for recording in a plurality of sectors in user track regions; providing table of contents (TOC) information for recording in a plurality of sectors in at least one TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modulating the encoded user and TOC information; recording the modulated, encoded TOC information in said at least one TOC track in [either] said lead-in area [or said program area]; and recording the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between $0.7\text{ }\mu\text{m}$ and $0.9\text{ }\mu\text{m}$.--

--70. (Twice Amended) Apparatus for recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said apparatus comprising: input means for providing user information for recording in a plurality of sectors in user track regions and table of contents (TOC) information for recording in a plurality of sectors in at least one TOC track, said TOC

information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and TOC information; and recording means for recording the modulated, encoded TOC information in said at least one TOC track in [either] said lead-in area [or said program area] and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between $0.7\text{ }\mu\text{m}$ and $0.9\text{ }\mu\text{m}$.--

--71. (Twice Amended) A method of recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said method comprising the steps of: providing user information for recording in a plurality of sectors in user track regions; providing table of contents (TOC) information for recording in a plurality of sectors in at least one TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modulating the encoded user and TOC information; recording the modulated, encoded TOC information in said at least one TOC track in [either] said lead-in area [or said program area]; and recording the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between $0.646\text{ }\mu\text{m}$ and $1.05\text{ }\mu\text{m}$, wherein said optical disk has a linear velocity in the range of 3.3 m to 5.3 m per second during a playback operation.--

--72. (Twice Amended) Apparatus for recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said apparatus comprising: input means for providing user

information for recording in a plurality of sectors in user track regions and table of contents (TOC) information for recording in a plurality of sectors in at least one TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and TOC information; and recording means for recording the modulated, encoded TOC information in said at least one TOC track in [either] said lead-in area [or said program area] and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm , wherein said optical disk has a linear velocity in the range of 3.3 m to 5.3 m per second during a playback operation.--